May 28, 1958

Dr. Ira A. Telford
Department of Anatomy
The George Washington University School of Medicine
1335 H. Street, N. W.
Washington 25, D. C.

Dear Dr. Telford:

Dr. Lederberg has asked me to reply to your letter, since I have been giving the lectures in human genetics to the medical students for the past two years.

At the time I joined the medical school faculty, there was no department of medical genetics, and I was attached to the anatomy department. This affiliation was natural because of the role of anatomy in the preclinical years and also because space was available for an office and laboratory in the new anatomy building. At that time, two years ago, I seriously considered taking part in the instruction program of the anatomy department. However, in the next few months it became clear that my own research interests would have to be sacrificed to do this, and the creation of a department of medical genetics made my relations with anatomy obviously temporary. As an experiment, instruction in genetics has been grafted on to the second semester anatomy course as 7 lectures and discussions, supplemented this year by 3 lectures on genetics in preventive medicine to the sophomores. Dr. Lederberg gave two of the freshman lectures, on histocompatibility, microbial genetics, and genetics of somatic cells.

On the basis of the last two years, we have come to feel that this kind of instruction in genetics is seriously defective. There is no text suitable for so short a course, most of the students begin and end the lectures essentially ignorant of genetics, they resent the additional assignments for which they receive no credit, there is no relation between these lectures and the anatomy course for which they are responsible, and we have been unable to convey what we consider to be the bare fundamentals of medical genetics in this amount of time. Discussions have been interesting, but because of the limited biological background of most of the students, discussions cannot substitute for formal instruction, reading, and problem solving.

We have therefore proposed to the curriculum committee a required one-credit course in medical genetics in the freshman or sophomore year, covering the enclosed material and supplemented by discussion sections. We have considered Roberts or Stern as the text, pending the publication of a book

TELFORD, I. A.

designed specifically for such a medical course. We do not know whether this will be approved, but we are convinced that such a course is the irreducible minimum for instruction in medical genetics, and that the experience of the last two years should not be repeated.

The possibility of a required pre-medical course in medical genetics has also been considered, and although preferable if properly taught, conflicts with present trends in medical education. Few universities give a satisfactory undergraduate course in genetics for pre-medical students. We are in favor of having many of the clinical applications of genetics taught by the clinical departments in connection with rounds and demonstrations, providing the students have a basic understanding of genetic principles by the end of their sophomore year. We are opposed to the fractionation of basic instruction to the point where the student is never required to demonstrate a grasp of genetic fundamentals.

In addition to the above program, Dr. Lederberg gives an elective course in microbial genetics and I give a human genetics course primarily for graduate students, but open to sophomore medical students. An M. D. thesis is now required, and students may elect problems in medical genetics. One of the freshmen who survived the lectures this year is beginning a summer fellowship on recessive muscular dystrophy in the chicken and mouse.

I hope that this will give you an idea of the instruction in genetics at Wisconsin. (I forgot to mention that Dr. Crow gives a sound course in general genetics to undergraduates, which is elected by about 20% of our medical students.) Judging from discussions at the symposium here, many other medical schools that offer instruction in genetics have tried to get by with less than one credit of work. From our experience, there is too little value in such a superficial approach to justify burdening the medical student with it. However, with considerable simplification and omission, I believe that a one-credit course will provide a satisfactory foundation in genetics for medical students.

Sincerely yours,

Newton E. Morton

NEM/ew

cc- Dean Bowers
J. Lederberg